

**Claims**

1. A method of converting aquatic plants into liquid fertilizer and solid residue that comprises plant protein, carbohydrates and fiber, the method comprising:
  - placing the aquatic plants in a blending tank together with water;
  - blending the aquatic plants and water in the tank to produce finely divided plant matter;
  - forming an alkaline water solution containing the finely divided plant matter;
  - agitating the solution thereby to dissolve nutrients contained in the plant matter; and,
  - separating the solution containing the dissolved nutrients from remaining finely divided plant matter thereby to produce the liquid fertilizer and the solid residue.
2. The method of claim 1 adapted to produce a solid fertilizer, comprising:
  - placing the solution after separation from the solid residue in a reaction vessel; and,
  - adjusting the water and alkali salt content of the solution to produce a reaction that solidifies the solution in the reaction vessel thereby producing the solid fertilizer.
3. The method of claim 2 comprising removing the solid fertilizer from the reaction vessel, the removing comprising fracturing the solid fertilizer thereby to produce a particulate fertilizer.
4. The method of claim 1 comprising intermediate steps of:
  - separating the finely divided plant matter from the water in the blending tank; and,
  - placing the separated plant matter in reaction vessel together with

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water and alkali salt in predetermined quantities selected to produce a reaction that solidifies the contents of the reaction vessel.

5. The method of claim 4 comprising removing the solidified contents, the removing comprising fracturing the solidified contents to produce a granular fertilizer.

6. The method of claim 1 comprising:  
collecting the aquatic plants in a body of water in which the plants grow; and,  
suctioning the collecting aquatic plants and surrounding water into the blending tank.

7. The method of claim 6 in which the gathering of the aquatic plants comprises:  
moving a powered floating vessel in the body of water; and,  
collecting the aquatic plants during movement of the powered floating vessel with a collecting structure mounted to a forward end of the powered floating vessel; and,  
moving the collected aquatic plants with the powered floating vessel to a predetermined location where the suction can be applied to the collected aquatic plants.

8. The method of claim 1 in which the aquatic plant is hyacinth.

9. A method of converting hyacinth into liquid fertilizer and solid residue that comprises plant protein, carbohydrates and fiber, the method comprising:

collecting the hyacinth;

placing the collected hyacinth together with water in a blending tank;

blending the hyacinth and the water in the blending tank thereby to finely divide the hyacinth;

separating the finely divided hyacinth from the water; and,

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adding a solution of water and alkali salts to the separated finely divided hyacinth thereby to dissolve nutrients contained in the hyacinth; and,

separating the solution containing the dissolved nutrients from remaining solid plant matter thereby to produce the liquid fertilizer and the solid residue.

10. The method of claim 9 adapted to solidify the liquid fertilizer in which:

the liquid fertilizer is transferred to a reaction vessel; and,

the quantities of water and the alkali salts added to the separated finely divided plant matter are selected to produce a reaction that solidifies the liquid fertilizer in the reaction vessel.

11. The method of claim 10 comprising fracturing the solid fertilizer to produce a granular fertilizer.

12. The method of claim 11 comprising removing the solidified fertilizer from the reaction vessel, the removal comprising fracturing the solidified to produce a granular fertilizer.